

Miscellaneous Notes

1. A NOTE ON THE URIAL, *OVIS ORIENTALIS* GMELIN

Only scanty information is recorded in the revised second edition of Prater's *BOOK OF INDIAN ANIMALS* regarding this wild sheep, and in view of this it seems worthwhile to record a few of my own observations. In March 1962 I obtained a young male Urial which had been captured in the Suleiman range of Baluchistan. It was about thirteen months old at that time and has now attained maturity giving valuable information on horn growth and dentition as indicators of age and development in this species.

Contrary to what Stockley (1936) states at p. 123 in *STALKING IN THE HIMALAYAS AND NORTHERN INDIA*, horn growth is very rapid in the first two or three years. Thereafter it slows down rapidly and probably ceases altogether after the sixth year.

When I obtained my pet it still had eight milk teeth in the front of its mouth but the first pair of centre incisors erupted by October, and the third or outer pair by the 39th month. The outer incisors, erupted at 48 months.

The rate of growth of the horns is as follows:

HORN MEASUREMENTS

Date	Length in inches measured over outer curve.	
5-9-1962	12½	} Both horns equal in length.
20-4-1963	17	
16-9-1963	21¼	
	Tip of one horn splintered off.	
24-5-1964	23½	24¾
6-8-1964	25½	27¼
1-4-1965	27½	27½
22-11-1965	27½	28
20-8-1966	28	29

Breeding Habits. It is believed that the rut starts in September, and since shikaris have often seen rams pursuing ewes and fighting with each other up to mid-October, it can be considered to last from six to eight weeks. Jerdon (1874) in *THE MAMMALS OF INDIA* gives the gestation period as from four to seven months, but Prater (op. cit.) states that it is not known but must presumably be between four to six months. Observation on my pet indicates that some mating could easily take place by late August. The head keeper at Lahore Zoo recalls Punjab Urial breeding successfully some years

ago and states that the gestation period was six months. This man is, however, illiterate and has no written record. My animal as far as I can estimate was born in early February, whilst an Urial lamb captured last year for Lahore Zoo from the Salt Range was born in late February. On such flimsy evidence I would consider the gestation period to average 180 days (compared with about 150 days average in domestic sheep). It is certainly more than five months and less than seven months according to what I can learn from questioning local shikaris who live in areas where Urial occur and who have had ample opportunity to observe them in their natural state. The majority of young are born during February and March both in Baluchistan and the Salt Range. Earlier records state that twins are not uncommon. Information from local shikaris has to be treated cautiously and I have no first hand evidence. However, in the Kirthar Range where Urial and Sind Ibex (*Capra hircus*) occur together, all the local Shikaris believe that the Urial never has more than one offspring while the Ibex generally has two unless the Monsoon rains fail altogether in which event few breed. Similarly, in Chitral, where Markhor (*Capra falconeri*) and Shapu occur on the same mountain ranges, I have been told by local shikaris that the Markhor generally bear twins and the Shapu single offspring. It appears therefore, that twins are probably rare and single offspring more usual with this species.

My Urial reached sexual maturity at three years of age. In September 1963 when I estimated its age at 32 months, its testes were hardly developed. Its facial (lachrymal) glands were not noticeable nor its behaviour unusual. In September 1964 it showed marked restlessness and agitation; butting the sides of its pen, with a noticeable discharge from the lachrymal glands. Its testicles were well down and evident.

During the rutting season rams often chip and splinter off huge chunks of their horn in their head-on collisions.

Miscellaneous Observations. Many writers have commented upon the extreme wariness of this animal. It possesses a keen sense of smell as well as acute eyesight and probably depends at times upon its acute hearing as well. I have often been impressed by the immediate reaction of my pet to movement of men as far as 300 yards away and who were in fact largely concealed by bushes and not visible to me. It is well known that Urial keep contact with each other by scent from the inguinal, as well as the foot glands. The latter consists of very small circular orifices in the bare skin inside the fold or crack which extends from the front of the hoof into the

pastern. I have not detected any very noticeable smell from foot glands, but infer that their scent must be acute.

In the spring and early summer my Urial is relatively silent and the lachrymal glands appear dry. But from early August these facial glands start to exude a sticky substance which stains the cheeks, and from late August, with increasing intensity into September, he frequently calls. Other writers call this sound a bleat, I would prefer to describe it as a rather throaty low pitched 'Me-errrh' sound. I have never heard their whistling alarm call.

There are two moults in the year. In March the longer winter hair comes off in ragged patches, starting first with the lower flanks. The animal feels the irritation and rubs itself against rocks and projections. The beard and ruff partly moulted become much shorter in the summer. In early August the new winter coat begins to grow as well as the more luxuriant chest ruff. The pelage is at this time brilliant, becoming light chocolate in colour. Just behind the withers, there is a faint vertical area of blacker hairs. The hairs, both in winter and summer, are very pithy and in texture like those of the Musk Deer. An adaptation perhaps against the extreme variation in day and night temperatures in the environment in which they live, as they have virtually no under-wool, even in their winter coat.

The Urial in its wild state, though wary, exhibits certain rather foolish traits. For example, if a small scattered group is suddenly fired upon they invariably converge together into a tight flock, and then pause to look around for the source of danger, generally thereby affording a second chance for slaughter to the unscrupulous hunter. They display a great curiosity for any unidentifiable noise or sight and it is possible to lure small bands closer by imitating their call. They are highly nomadic in habits and a small herd will suddenly desert a particular mountain range where they had been regularly observed for months, presumably in search of fresh feeding ground.

Present Status and Distribution. Three races occur:

Ovis orientalis vignei Blyth 1841. Known locally as the Shapu. This is the large race inhabiting the inner Himalayan ranges and is greyer in colour and generally bears a more scanty ruff than the lowland races. Its horns rarely describe a full circle and are often more prominently ridged than those of the Salt Range race. Extremely scarce around the perimeter of the main valley of Gilgit it only occurs on the right bank of the Chitral river and has become rare due to over-shooting. It is, however, fairly plentiful in Baltistan, and Ladakh.

Ovis orientalis blanfordi Hume 1877. Known locally as the Gad. It is clear from specimens which I have seen that this race intergrades with the Salt Range race and indeed I feel that there is no clear distinction between the two. It extends right down to the Mekran sea coast in Las Belas and even close to Karachi near Gadap and in the Thana Bula Khan Hills of Southern Sind. In the north it extends up to the Isa Khel Range in the former North West Frontier Province. Though it used to be well known around Peshawar, even forty years ago, it now appears to have been totally exterminated in all regions of the former North West Frontier Province except the extreme south-west. On the Sind-Baluchistan border it still occurs in considerable numbers in the Kirthar Range and in Baluchistan there are several herds in the Takhi-I-Suleiman area. A small herd still survives in the Chiltan reserve near Quetta, and it is quite numerous near the Afghan border in the Takhu Range. I would say that it is in no danger of extermination in these areas. With due caution for the many exceptions, which no doubt occur, my observations indicate that *Ovis orientalis blanfordi* to be longer legged and lighter in bone (more 'gazelle-like') than the Salt Range race. Also its horns have more prominent corrugations, are less massive at the base, and describe a more complete circle.

Ovis orientalis punjabiensis Lydekker 1913. Known locally as the Urial, this animal is more familiar to sportsmen. I have examined nine different captive specimens, including six rams, all from the Salt Range. They were heavier in bone and more stout limbed than *Ovis orientalis blanfordi* and the rams often had horns which were comparatively smoother and set at a wider and straighter angle to the skull than the Baluchistan Urial.

Although there are still a few herds in the Kala Chitta Range and the eastern part of the Salt Range up to the Attock Hills I would say that this race is much persecuted and in real danger of extermination if unrestricted shooting continues. It is certainly almost unknown in the hills around Rawalpindi and Jhelum where it used to be quite plentiful thirty years ago.

In closing I should like to reiterate that many of the above observations are based on the comments of others and I have only noted here those aspects that seemed to be reasonably reliable.

ROBERTS COTTON ASSOCIATES LTD.,
KHANEWAL, W. PAKISTAN,
September 11, 1966.

T. J. ROBERTS